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THIRTY YEARS
OF
THERAPEUTIC PROGRESS.

AN ADDRESS

AT THE ANNUAL MEETING
OF THE
BATH AND BRISTOL BRANCH OF THE
BRITISH MEDICAL ASSOCIATION,

ON
THURSDAY, JUNE 29TH, 1882,

BY
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"In Medicine I am sure unless one reads the work of others, one is liable perpetually to copy one's own prescriptions and methods of treatment, till one's whole practice is but an imitation of one's self; and half a score Medicines make up one's whole materia medica; and the apothecaries say the doctor has but 4 or 6 prescriptions to cure all diseases.

"Reasoning thus, I am determined to read all the new medical journals which come out, and other medical publications which are not too voluminous; by which one knows what others are doing in the medical world, and can astonish apothecaries and surgeons with the new and wonderful discoveries of the times."

*Letter from ERASMUS DARWIN to his son Robert,
April 13th, 1792.*

"No professional studies, however complete, can teach a man the whole of his profession; the most exact professional drill will omit to teach him the most interesting and the most important part of his own business—that part, namely, where the specialty of the profession comes directly into contact with the generality of human notions and human sympathies. Medicine has as much to do with a knowledge of human nature and of the human soul, as with the virtues of cunningly mingled drugs, and the revelations of a technical diagnosis."

Professor BLACKIE on "Self Culture."

NOTE.

In the following pages I have scarcely referred to Foreign Therapeutics, as much of it has very little to do with British medical practice, and the Address would have been made too long.

J. K. S.

Address.

GENTLEMEN AND FRIENDS,

It is a special honour, I think, to be the President of one of the largest and oldest branches of the British Medical Association during its jubilee year; and cordial thanks are due to my brethren who have invited me to hold a position of such dignity and trust. It has been the immemorial custom of the new President to "give an address" (as it is called), which means that he is expected to say something on an interesting topic in Medicine or in Surgery. If this is to be done with any degree of success, a man should utter what he has thought about with enthusiasm, or something which he has woven into the texture of his own mind:—such was the opinion of one of my predecessors in this chair, and we must all heartily assent to it. Plunging then *in medias res* without further preface or apology, I invite you to spend half-an-hour with me in surveying the wide field of therapeutic art as it has extended during the thirty years that I have been in practice; to "take stock" of our advancing territories, and our new trophies of healing; and to point out how our enquiries may be most profitably directed for the acquisition of fresh knowledge.

THIRTY YEARS OF THERAPEUTIC PROGRESS
—Yes, I think we may call it Progress in the real and high sense of the word. Not every year, perhaps, has borne its full measure of fruit; sometimes when ground has been seemingly

made, we have been obliged by further observation to retrace our steps; but, on the whole, the advance has been steady, and now and then quick and splendid. In a daring flight of fancy let us transport ourselves to where we were in 1852, and try and realize what was our then therapeutic poverty and nakedness in many important points; how, in reply to earnest entreaties from crying sufferers, we were often forced to confess our impotence to help; and how we resigned ourselves to the belief that some diseases which we could not then cure were naturally incurable. But all the time the healing secrets of nature were being disclosed one by one. Sometimes we have got what we wanted only by wrestling with nature's seeming obstinacy; in other cases we still feel rather halt and blind; and here and there we are no better off than Scott's north-country doctor, who boasted of his "two simples of calamy and laudamy." The treatment of diseases, says Dr. Latham, is part of their pathology; and if we fully grasp this deep truth, we shall never be chilled by that "therapeutic nihilism" which originated in the school of Vienna, and which has infected a large number of practitioners in all parts of the world. Rightly trained, we shall not slip into the pitfall described by Sir Thomas Watson, who, when inaugurating the first meeting of the Clinical Society for scientific work, said—"how vaguely, how ignorantly, how rashly, drugs are often prescribed. We try this, and, not succeeding, we try that; and, baffled again, we try something else." There is no truth now in the reproach written by a New York journalist eleven years ago, that Therapeutics had lingered far behind all other branches of medical research.^a But we may make our therapeutic possessions more real and sure by using them with precision and boldness, as if we thoroughly trusted them, as if we felt that we had a solid rock to lean upon:—for a laughing scepticism and a debilitating half-belief are more damaging to our medical creed than open enmity, and can never answer the doubter and the scorner who are ever challenging the faith that we have in us.^b

^a *New York Medical Gazette*, May 13, 1871.

^b The word *θεραπεύω* was used by ancient classical writers to denote the physician's watchful tending of the sick, and man's service of God; and is beautifully applied by Xenophon (*Mem. Soc.* IV.) to the care which the gods have of men.

The scope of this address concerns medical therapeutics only, or the history of medicines, properly so called. It is convenient to group them according to their supposed predominating influence on the different parts of the body; but no classification of this kind can be in a scientific sense exact. I shall say nothing about anæsthetics and antiseptics, partly because most of my friends around me know a great deal more about them than I do, and partly because each subject is a volume in itself, and an adequate history of either during the last thirty years would more than occupy all my time. Further, although surgical and obstetric therapeutics have achieved great triumphs, I am obliged by the same stress of time to pass by these provinces of brilliant discovery, and to speak only of what has passed through the physician's mind and has been seen with the physician's eyes. The special assignment of the serpent to the god of Medicine is probably a recognition of the fact that by our art the poisonous principles found in Nature are converted into agents for the cure of disease:—an *entity* which English doctors regard, not merely as an interesting subject of scientific study, but as an enemy to be fought with, and conquered when possible.

Thirty years ago, then, the atmosphere was full of rumours about the subduing of pain—of *medical* pain, if I may so call it. The victories of surgical anæsthesia had been worthily celebrated; could physicians show no similar marvels? It had become a by-word that there were certain forms of atrocious neuralgia which not only embittered the existence, but finally wore out the life of the sufferer, and which defied all known medicines, administered in every then known way. Whether by mouth or by rectum, on the sound skin or to the blistered skin, by vapours or by baths, how or when we would—still the bad old demon of pain sometimes baffled all our drugs and wearied all our efforts, to our unspeakable shame and sorrow. In all practical arts, do we not see how the right genius is often born at the right time, striking a light in the darkness, and finding out the very thing which all were crying for? Even so here. An Edinburgh physician came and quietly told us to dig down under the skin, and bathe the peccant and painful nerve with our anodyne fluid. Turn, if you will, to the *Edinburgh*

Medical and Surgical Journal for April, 1855, and then read the short, modest, almost timid paper in which Dr. Alexander Wood proclaims this new doctrine of merciful healing; a doctrine which, when we now look back on all its issues, marks an epoch in Medicine of extraordinary splendour; not a common milestone of common progress, but a new chapter, a new book, whose teaching runs far and wide into every department of our Art.^c

It shows how far-reaching in its scope a remedy may be, that morphia put under the skin not only quiets many sorts of neuralgia and often stops the initial processes of inflammation, but it calms the tumult of the heart when afflicted with valvular disease and consecutive hypertrophy;^d it alleviates the pangs of asthma, the ragings of colic, and alters the perversities of peristaltic action; it may overcome obstinate intestinal blockage and the spasm of renal calculus, and soothe a dangerous reflex vomiting. It robs convulsions, especially of the puerperal kind, of half their terrors; and may firmly control some of the vagaries of hysteria. In the treatment of a long sad case of cancer (particularly of the stomach), where should we be without such a refuge?^e Nor is it of less importance in the early treatment of some forms of insanity.

But a pain-deadener, such as morphia, is only one of many medicines successfully introduced under the skin. Atropia combats some of the therapeutic drawbacks of morphia (used hypodermically), and enables its good qualities to accomplish greater service.^f

^c In my Fothergillian Essay on the Therapeutics of pain, I ventured to insist on the supreme importance of allaying pain *as such*, even before discovering its cause. The physician may like to philosophize on the logical order of symptoms, but the patient clamours for relief and cares not for logic. Pain by itself, says Dr. Latham, may kill; it may overwhelm the nervous system by its magnitude and duration. Homer notices how the "pulse faileth for exceeding pain." (Odys. v. 397; Worsley's transl.)

^d See some remarkable papers by Dr. Clifford Allbutt, *Practitioner*, 1871.

^e Of our own Bishop Ken, a biographer relates that in his latter years he suffered "excruciating pain from chronic disease," incapable of palliation (apparently) by any then known means. Bp. Ken's pathetic poems entitled, "Pain" and "Ease," are little read, but may be seen in Henry Morley's *Library of English Literature*.

^f The latest and best news of atropia *sub cutis* is that, when administered before the inhalation of chloroform, it restrains the inhibitory action of the vagus nerve upon the heart. Something scientifically definite ought to be planned to prevent (if possible) our far too many "chloroform accidents."

8 *Thirty Years of Therapeutic Progress.*

Ergotine, apomorphia,^f physostigma, quinine, chloroform, strychnia, and mercury, have all found a place in the hypodermic syringe, and done their duty with more or less power and promptness. But there are obvious limits to a plan in which one of the conditions is that a medicine shall not have a too potent local effect on the tissues. On hypodermic medication generally I ask these questions:—Is there always sufficient skill shown in the introduction of the syringe? Do we think enough of the pharmaceutical perfection of our solutions?^g And is it not wiser to appeal (at least sometimes) to the imagination of our patients, and inject our anodyne as near as possible to the painful nerve? We must all feel it to be a solemn duty to discourage the popular abuse of a remedy so supremely valuable—an abuse which has been known to bring back some of those very ills which it was designed to cure, and has even put life itself in jeopardy.

Some may think that I am talking fable rather than fact, when I say that in a systematic work on “Medicines, their uses and mode of administration,” published so lately as 1858, it was stated of Bromide of Potassium, that this salt is “now so rarely used that it has been omitted from the last edition of the *London Pharmacopœia*.” How we have seen this drug grow from a barren curiosity on a chemical shelf to the giddy exaltation of a fashionable medicine! It was Sir Charles Locock who (in 1857) planted the therapeutic germ that has since grown to such goodly proportions. He said that he had found KBr “remarkably efficacious in hysterical epilepsy” (whatever he may have meant by this term). For four or five years the germ promised to bear neither blossom nor fruit; but the utility of the new medicine was soon proclaimed by Wilks, Begbie, and many others, Prescribed at first in doses too small, it disappointed its earliest friends; but in a paper written by Dr. J. Russell Reynolds in 1868, its use was formulated in the great group of paroxysmal diseases, whether of motion or of sensation; and its value was said to be highest according as the disease

^f Recommended by Dr. Gowers for “hysteroid” attacks.

^g Solutions of the tartrate and sulphate of morphia have been suggested; but Mr. Martindale takes pure morphia, and dissolves it with as little acetic acid as possible.

approaches the type of convulsion called "epileptic."^h As a hypnotic when the brain is burdened with anxious emotions or a stress of conflicting thoughts, KBr is eminently useful; and the alienist claims it for some forms of vertigo and mania. Is it not a magnificent boon to have a medicine which so constantly controls many chronic and obscure diseases, and yet never does the slightest harm even when it fails to do good? From a chemico-therapeutical standpoint it is remarkable that Bromine by itself does not benefit epilepsy, neither do the bromides of calcium and magnesium; only the potassic and sodic and ammonia salts of bromine.

Chloral was first talked about in this country during the autumn of 1869, and in 1870 and 1871 it came into common professional use. Great was the enthusiasm which this new drug created; enormous was the literature which grew around it; and I think we shall allow that, in spite of endless fears and warnings, it has stood its ground well, and is still foremost as the type of a pure hypnotic. That it can be, and has been, much misused, is simply a flattery of its power; for the vast majority of medicines which are potent for good are also potent for harm. Except in a remote way chloral is not a remedy against pain, but it adds to the efficacy of the bromides and of opium when combined with them.ⁱ According to Liebreich, the discoverer of its medical properties, the best effects of chloral are developed with a normally alkaline state of blood; so that in cases of uric arthritis (or gout) chloral may, even in high doses, cause excitement and not sleep. The application of chloral to medicinal purposes seems to be one of the greatest therapeutic advances of the last thirty years. And with these weapons of the bromide salts and chloral, how much better we are able to combat sleeplessness (that frequent sequel of brain exhaus-

^h *Practitioner*, July, 1868. The remarks by Dr. Gowers in his recent book on *Epilepsy and other chronic convulsive diseases* concerning the administration of the Bromides, and especially what he calls the *maximum dose* treatment, deserve an attentive study. My own experience does not confirm his statement that arsenic added to KBr almost always prevents bromic aene.

ⁱ Some remarks on this point by Dr. Stokoe well deserve attention (*Guy's Hosp. Rep.* 1876, p. 236). A few years ago (*Brit. Med. Jour.*, 1873) I attempted to illustrate the importance of combining medicines of different shades of therapeutic action, so that they may help each other by a sort of physiological economy.

tion), than when we had only opium (often quite out of the question) or heavy doses of henbane, hop, and Indian hemp.

As a foil to these great successes, I will now speak of a substance which has been pushed and praised for maladies great and small, and which we were once innocent enough to believe had the essential force of being able to cure almost everything. It was said to be good for many skin diseases; there would be henceforth no such thing as pernicious anæmia; and as for all disorders of the nervous system, they would simply vanish before the magic wand of their kind benefactor. In spite of the eloquence of Dr. Broadbent and several others, you must excuse my bluntness when I assert my belief that Phosphorus is one of the great shams of the day. I have not been able to convince myself that it has ever made any one better or happier; it has failed all along the line; but then there is a quackish whim of lay people to like to talk about Phosphorus, because it is supposed to pay a compliment to brain and nerves, the higher intellectual faculties, and all that kind of thing. Do let us boldly liberate ourselves from this useless pharmaceutical baggage, for we have already as much as we can carry with profit to ourselves and to our clients.

It is a disadvantage of any formal grouping of medicines that the functions of one group may overlap those of another; or, in other words, a medicine may have two and even more uses of a diverse sort. Thus, the association of Arsenic with ague and with diseases of the skin is so strong, that we are apt to forget its utility in chorea, rheumatoid arthritis, pernicious anæmia, and certain forms of pulmonary consumption; to say nothing of its power of controlling some forms of neuralgia. This manysidedness of Arsenic is the gradual discovery of our own days.^j Again, we think of Salicin mostly in connexion with rheumatism, and perhaps forget how well it moderates facial neuralgia when quinine cannot be tolerated, and other things fail. The same may be said of Chloride of Ammonium. We aim at special neuralgias with special drugs, and we often succeed in subduing migraine with guarana

^j It is only fair to Dr. Pereira, who lived in the pre-scientific epoch of Therapeutics, to acknowledge how earnestly he advocated the use of Arsenic for chorea. More than a century ago Arsenic was extolled for cancer as much as Chian turpentine is now, and with just as little reason.

or citrate of caffeine; infra-orbital neuralgia with croton-chloral; dental pain with gelsemium sempervirens; and lumbago with actæa racemosa. I doubt, however, whether any of these new medicines act with even an approach to the certainty with which quinine cures supra-orbital pain, the most rhythmical of all neuralgias. In the application of Faradic electricity to the alleviation of pain, the skin should be dry, and we should use dry conductors. ^k

What an improvement has taken place in the therapeutic conduct of those early stages of mental disorder which come under our care as general practitioners, before experts are called in. When to give opium and when to abstain from it; the particular utilities of chloral, of the bromides with Indian hemp, and of digitalis with prussic acid; and the really remarkable properties of the alkaloid hyoscyamia:—are parts of the great therapeutic movement of the last thirty years. I had the privilege of hearing Dr. Todd's famous lectures on Delirium at King's-College Hospital in 1850 and 1851, and his teaching bore immediate fruit in the altered treatment of a condition which had been supposed to denote acute (or sthenic) inflammation of the brain. To feed delirium, and to support the patient's strength *through* it, soon become true and wholesome doctrine: and it was, so to speak, only another doctrine of the same school to insist upon the administration of a very large quantity of food as a substantial part of the therapeusis of nearly all cerebro-spinal diseases. ^l I recollect a paper by a distinguished physician, some time in 1863 or 1864, pleading for the administration of cod-liver oil, cream, and butter, as a matter of physiological common sense in the management of neuralgia, because they supply what is wanting in the nutrition of the cerebro-spinal system. How much more reasonable than the vast apparatus of empirical stuff handed down from our grandfathers!

Dr. Hughes Bennett used to tell his clinical class that two of the main causes of tuberculosis are the dearness of butter, and the abundance of pastry-cooks. It is a perpetual homage to the

^k An unquestionable septicæism is spreading over the profession about Electricity in every branch of its therapeutic work, owing perhaps to the injudicious advocacy of its friends.

^l For illustrations of this point, see Dr. Blandford's *Lectures on Insanity*.

memory of the great Professor that we are still trying to discover the easiest way of taking cod-liver oil. It seems theoretically best to take it about an hour after a meal, because then it has a shorter time to stay in the stomach, and will pass more quickly into the duodenum. An emulsion with gum acacia is much to be commended. It has been shown that the easy digestibility of cod-liver oil is due to its biliary principles. Neumann proved that oil of any sort passes more readily through an animal membrane moistened with bile than through one moistened with water. And Dr. Bennett himself contended that the coarser kinds of oil, though more disgusting to the taste, are sometimes better borne by the stomach, because containing more biliary principles.^m

Our advance in the treatment of pulmonary consumption has been steady and decisive. Testimony to the value of the hypophosphite salts has come from several unbiassed quarters.ⁿ My own experience of muriate (or chloride) of calcium is very favourable; under its prolonged use morbid secretions may dry up, and the general health become greatly improved.^o A patient (single female, aged 30) has taken by my direction 10 grains of chloride of calcium nearly every day for a year and a-half, and the benefit is remarkable. Equally worthy of note is the occasionally decided influence of this salt in enlargement of glands, and in external and internal chronic suppuration.^p To the Dublin school of 20 years ago we owe the suggestion of administering chlorate of potash almost *ad libitum*—at least two drachms daily, in barley water or any bland fluid. For

^m In 1841 Dr. Hughes Bennett wrote and published what is now a curiosity of literature—"A Treatise on the Oleum Jecoris Aselli, or Cod-liver Oil, as a therapeutic agent in certain forms of Gout, Rheumatism, and Scrofula; with cases." In Jan., 1842, the *British and Foreign Medico-Chirurgical Review* expressed "fears that the *oleum jecoris aselli* will prove far from equal to the expectations which Dr. Bennett's treatise is likely to excite in its favour." Few oracles have prophesied more falsely!—The little difficulties in the way of digesting cod-liver oil may be removed by floating it on pancreatine wine; by swallowing it at bed-time, just before sleep; or by Dr. B. Foster's plan of combining it with ether.

ⁿ Dr. Thorowgood's paper in *B. M. J.*, July 1, 1882, should be studied.

^o Dr. Sawyer's experience is very striking, and is recorded in *B. M. J.*, 1880.

^p Among new things sulphide of calcium deserves a place, and its uses are given in Dr. Phillips' *Materia Medica*, Vol. II., 36.

the relief of an exhausting symptom, the night sweats, some trustworthy experiments have been made by Dr. Murrell. It is singular that pathological sweating may be arrested not only by drugs which exert an inhibitory action on sweat-centres, but also by agents which in health promote perspiration, as Dover's powder and picrotoxine. A combination of oxide of zinc and belladonna holds its ground, however, in at least nine cases out of ten. The value of ergotine in mitigating hæmoptysis has been substantiated by numerous observers.

Hopeful results may be expected from the trials that are being made in the treatment of some forms of bronchial and lung disease by the inhalation of medicated vapours. To our departed friend Dr. Symonds (in his richly suggestive *Therapeutic Memoranda*, published in the *B. M. J.* during 1868) we are indebted for useful hints on the value of inhaling iodine and creasote in several chronic maladies of the larynx and chest; foreshadowings of the wider application of remedies of the same kind, but of more potent efficacy, in later days.^q The medical press has almost overflowed lately with the results of clinical experiments, from which great things will issue during the coming years.^r Akin to this subject is the important one of drug-smoking as a medium of getting a medicine into the system. Dr. Reginald Thompson's observations have much promise, and seem to prove that, for delicacy and promptness of action, this method might rival and even surpass the hypodermic plan.

Great progress has been made in the management of those formidable neuroses, whooping-cough and asthma. The former is, as a rule, excellently treated by minute and frequent doses of atropia and chloral; sometimes very small and frequent doses of morphia are better still. In Dr. Hyde Salter's classical book on asthma, there is not a word said about hypodermic morphia, although this (with atropia sometimes) is now our therapeutic

^q These *Memoranda* are literally crammed with good things, and to one hint I cannot fully express my obligation—the application of oil of turpentine and glycerine to foul ulcers on the tonsils.

^r Our thanks are due to Drs. W. Roberts, Coghill, and Burney Vee, for their careful observations and reports.

mainstay. Applying iodine to the skin over the course of the pneumogastric nerves has been well spoken of. Concerning pulmonary and cardiac affections generally, do we fully grasp the power of belladonna; do we understand that its effect is nearly identical with section of the pneumogastric nerve, stimulating the respiratory centre and the heart to more quickened action? In that almost desperate disease, capillary bronchitis, the old "suffocative catarrh," our chief prospect of doing good (so far as medicines are concerned) lies in the united influence of belladonna and ipecacuanha. Do we act as if we realized the tolerance of children for belladonna, and that it ought to be given to them not only in relatively, but in absolutely, larger doses than to adults? Let those who prescribe it in the penurious doses advised in Dr. Day's work on the *Diseases of Children* read a paper by Dr. Kelly in the *Practitioner* about 9 years ago, in which he says that he gave a child, two years and eight months old, 15 drachms of the tincture of belladonna in four days, with the effect merely of a "blush on the skin and a pair of dilated pupils;" while another child, aged six years and a-half, took 15 minims every two hours for four days; "no apparent effects were noticed, and the child seemed as lively and cheerful as usual." Belladonna is said to act on the heart in an exactly contrary way to digitalis. Opium and belladonna together regulate and invigorate the contractility of the heart; and, finally, when belladonna is combined with aconite, the depressing power of the latter is obviated. Among the collateral virtues of strychnia is that of being a bronchial and cardiac stimulant; and for the physiological evidence of this newly-known fact I may refer to Dr. Lauder Brunton's paper in the St. Bartholomew's Hospital Reports for 1880.

The inaugural dissertation of the late Dr. Fleming on the medical properties of aconite, belongs to the classics of therapeutic literature. The formula for aconite is that it lessens the pulse-rate, lowers arterial tension, and diminishes abnormal heat. Dr. Wilks prescribes it at the beginning of every inflammatory process. Dr. Ringer gives one minim of the tincture every 15 minutes for two hours, and after that hourly. Aconite is now commonly administered in the first stage of sthenic croupous pneumonia. But how

ought it to be given? It ought to be combined with opium and belladonna, if there be any meaning in what I have called the *physiological economy* of medicines, and their mutual help. Aconite controls pyrexia. Very small doses of opium augment the heart's force, counteract any depressing action of the aconite, and promote perspiration. Belladonna tones the heart, stimulates the kidneys and the liver, and combats the paralyzing influence of opium on the respiratory centre. The union of three potent medicines may, perhaps, offend the canons of scientific simplicity. But I plead with emphasis that our first duty is to do our patients good, and that with any means or combination of means put into our power. If the healthy human organism be complex, disease is often more complex still; and so we must fight it with all the trustworthy weapons that our hands can hold.^s

Do my friends ever prescribe the *Prunus Virginiana*, or American wild cherry? If they have not yet understood its power of imparting tone and calmness to the arterial system by a special action on the arterial nervo-muscular tissues, they have something new and useful to learn; and for quite a brilliant exposition of the place of this medicine in our therapeutic code, I refer to two papers by Dr. Clifford Allbutt, in the *Medical Times and Gazette* for February, 1867. I approach the subject of *Digitalis* almost with despair. Less than a year ago it was shown by a good writer (*Lancet*, October 1, 1881) that the most qualified observers are at direct variance about its action. Are the laws of inductive reasoning so far forgotten that this question cannot be settled? No other drug has been such a battlefield for eager partizans: but it is not by erecting and tearing down every alternate year that the science of healing is built up. Dr. Ringer graphically portrays the class of cases in which he believes *digitalis* to be most useful; and Dr. Phillips sums up the matter by saying that those cases of heart-disease receive most benefit in which there is weakness of heart-pulsation, irregularity, venous engorgement, and a scanty secretion of urine. I quit an embarrassing problem with the strong im-

^s This is an opportunity of mentioning Dr. Anstie's "Stimulants and Narcotics" as a book which ought to be minutely studied by every therapist, being the richest legacy of thought bequeathed by its lamented author. Dr. Harley's "Old vegetable Neurotics" is another book of the same thorough kind.

pression that digitalis is a very over-rated medicine. It is impossible to do more than barely refer to the inhalation of nitrite of amyl for the so-called *angina pectoris*, or heart-spasm, one of those distinct advances in therapeutic knowledge for which we are indebted to Dr. Lauder Brunton. But we must not forget the cautions about its use which have been taught by Dr. Moxon, who has shown that there is a form of painful spasm of the heart, associated with fatty degeneration, in which nitrite of amyl probably does harm. Nitro-glycerine is, I believe, the latest remedy for *angina pectoris*.

No finer harvest will be reaped than that which will come from a study of what has been vaguely termed "indigestion." Indigestion is a cause of nerve-depression, because of the poisonous products absorbed into the blood through want of physical exercise and inaction of the liver. To understand and to regulate the successive phases of gastric, pancreatic, and intestinal digestion, is a piece of physiological knowledge which will reward itself in the more precise application of our chemical remedies. A brilliant first-fruit of this study was Dr. Roberts' *Lumleian Lectures* on the digestive ferments, and on the preparation and use of artificially-digested food. The various malted foods and preparations of pepsine are intended to supply the place of the natural ferment in the saliva and pancreatic secretion, when this is defective in quantity or quality. Podophyllin came to us from America more than 20 years ago; and to Dr. Rutherford we owe the introduction of iridin and euonymin as cholagogues. Some of us must have heard with astonishment Dr. Norman Kerr's paper at the Bath meeting of the Association, relating cases of obstinate blockage in the bowels, for which 2 grains of extract of belladonna were successfully given every hour for several hours; another example of the newly-applied power of this unique medicine, when not fettered by *that timid dosage which is the cause of half our therapeutic failures*. How charmingly may we soothe the pangs of the so-called English cholera by hypodermic atropia and morphia! When we control obstinate vomiting by frequent and minute doses of ipecacuanha, how it illustrates the metaphysical fallacy that a drug must always act after one kind, though in different degrees, whatever the dose in which it may be

given. Oxide of zinc is a capital remedy for the neuro-diarrhœa of children; and nothing can be better than coto bark and Indian bael for the exhausting diarrhœa of phthisis. Of the value of copaiba resin and of caffen in certain dropsies, I can state nothing favourable from my own experience. Wonderful were the chemical prospects at one time of dissolving renal calculi by antidotal agents introduced into the blood; but Sir Henry Thompson shows how much easier it is to prevent calculi than to submit them to solvents when once formed. Some persons think that only *surgical* novelties come from America; but American physicians have a sensible plan of treating renal gravel, which might be imitated among ourselves. After the usual dose of hypodermic morphia, the Transatlantic therapist does not soak his patient in baths of hot water or vapour, but makes him walk about to favour the descent of the stone by simple gravitation; and he prescribes copious draughts of simple water or of diuretic medicine in order, if possible, to force the stone on by the simple weight of excreted fluid.

A few words on some new methods of treating constitutional diseases. If there be any one who still believes that lithæmia or gout is curable by lithia, I beg him to try and make me a convert to his views. Says Dr. Latham in his quiet way—"acute rheumatism has experienced strange things at the hands of medical men;" and a member of our own branch wrote several years ago that 29 remedies had been proclaimed for rheumatic fever, and each had been extolled as more potent than all the rest! Surely it was almost a scandal to our good workmanship that up to 1876 there was no recognized antidote to one of the most common acute diseases. Nature at length suddenly gave up her secret, and the depreciatory criticism of small minds and jealous dispositions shall not rob the discoverer (Dr. Maclagan) of his honest fame. Whether by chance or by skill he has made one of the greatest therapeutic achievements of the 19th century.^t The literature of this one subject has grown to a tremendous bulk; and all I can do now is to communicate the present ideal treatment of rheumatic fever.

^t How dangerous it is to prophesy about medicines, may be illustrated from a standard work on *Materia Medica*, in which it was gravely stated (1874)—"Probably it is only as a mild stomachic tonic, in cases of atonic dyspepsia, that Salicin will continue to be used."

After a preliminary purge with podophyllin and jalap, give 20 grains of salicin every hour for 16 or 20 hours ; and keep up the saturation of the blood with the medicine until all peril of relapse may seem to have passed away. And he who has once fairly used salicin will, I believe, never care again to prescribe the salicyl compounds of ammonia and soda.

The specific fevers of small-pox and typhoid, could, if we chose, be utterly abolished ; but the extinction of measles and of scarlet fever seems at present beyond our reach. Still, if unable to quell these blood-storms, we feel more competent than ever to guide our patients through them. It is in the conduct of these illnesses that isolation, disinfection, and good nursing receive their most appropriate illustration. Wonderful, indeed, has been the progress of these aids to the healing art during the last quarter of a century. And then, when all internal medicines have failed, comes the great external medicine of hydrotherapy, the most potent weapon with which to wage war against hyperpyrexia, and by which many lives have been snatched from almost certain death. It is in connexion, too, with acute disease in its varied types that the power of alcohol has been most rigidly studied. The "alcohol question" (physiological and social) will take a long time to settle ; but the gradual growth of medical opinion leans to the view that alcohol is an incomparable medicine in certain pyrexial states, and in helping to retard the advance of slow wasting maladies. In the history of the science of alcohol, the names of Christison and Anstie are to be held in special honour.^u

The zealous enquirer who wishes to know what a chasm there is between the present therapeutics of diseases of the skin and that of 25 years ago, may profitably refer to the *Pharmacopœia* of the London Hospital for Diseases of the Skin, a third edition of which was published in 1858 after the supervision of that accomplished

^u Conceding, as I am bound in truth to do, that my revered teacher Dr. Todd often overstepped the scientific limits of alcohol medication (See his *Lectures on certain Acute Diseases*, 1860), two things should be remembered on the other side. (1) He had no sphygmograph nor clinical thermometer to correct or confirm his conclusions. (2) The supposed excesses of his practice were, in some important points, precisely those most emphatically sanctioned during the late Franco-German war by leading physicians and surgeons (Socin and Liebermeister among others), who prescribed for many cases of poisoned-wound fevers 3 bottles of port wine and 100 grains of quinine every 24 hours.

dermatologist, the late James Startin. A huge conglomerate of his empirical formulæ has given way to the sweeter reasonableness^{u*} of tender hydrocarbons, gentle emollients, and various things gathered from all the Kingdoms of Nature which may soothe superficial trophic nerves. Here, as elsewhere, we think now mostly of nerves, whereas thirty years ago men talked much more about the blood; and many diseases of the skin were imagined to be signs of "bad blood," or an effort of nature to throw a quantity of waste or impure stuff out of the body. In another generation the pathologic pendulum will swing back, and we shall again think of good blood as the plasma out of which good skin has to be made; and so, when the skin "behaves itself unseemly," we shall return with the greater alertness to the cod-liver oil and the iron which ought never to have been deposed.^v

The organs of special sense belong to the tegumentary system. With every increase in our knowledge of the diseases of these organs and in our powers of diagnosing them, there has been a proportionate advance in our medical resources. The uses of atropia and eserine have become strictly defined; and I have the same confidence that I had 25 years ago in the capability of small and frequent doses of morphia for mitigating acute inflammation of both eye and ear. It is impossible to say more here on a vast subject.

Anthelmintics are a class of remedies which have increased in number and value. When I was a student I recollect that we had nothing but turpentine and castor oil for expelling tapeworm, for kousso was disappointing; now we have male fern oil and areca nut, and one dose of the former may suffice to clear away for ever a pest which has troubled a patient during many years. Santonine is tolerably efficacious against round worm: and now we ask for a remedy equally sure for sweeping the intestines free of the obstinate thread worm.

^u * It may not be generally known that Matthew Arnold's phrase "sweet reasonableness" was anticipated by "philosophic sweetness" in the *Guesses at Truth* of the brothers Hare.

^v Some so-called skin diseases are obviously pure neuroses; but many more are local bits of malnutrition, and to call them gouty this or rheumatic that is merely hiding our ignorance by a clumsy veil.

Are we any nearer curing saccharine diabetes than we were a quarter of a century back? I fear not, in spite of all Dr. Pavy's profound researches. I like Dr. Basham's saline plan as well as any,^w with steady daily doses of opium or codeia. The stringency of the diet-code has been certainly too violent. Ergot may do wonders sometimes, and it now and then cures the so-called "diabetes insipidus." Among the occasional marvels of ergot, may be named its undoubted influence on the condition of blood and of blood-vessels which we call purpura. But there is quite a crowd of new things which have helped our work step by step during the past 30 years. I can but glance at iodoform;^x calabar bean; the internal use of the sulphocarbolates; the treatment of exophthalmic goitre by nitrite of amyl, belladonna, and fluoric acid; iron as a prophylactic remedy for rheumatism; the internal uses of glycerine; the powers of camphor and of conium, as explained by Dr. J. Harley; food-injections with pancreatine in cases of ulcer of the stomach; the positive value of very large and continuous doses of iodide of potassium;^y and the application of galvanic electricity to paralyzed muscles. In hydrobromic acid we are said to possess a "remedy distinctly affiliated to the labyrinthine circulation. Its administration promotes the inhibitory function of the vessel area presided over by the inferior cervical ganglion;" and at the same time it relieves the "pulsating tinnitus from which these patients suffer."^z The organic bromides, introduced by Dr. B. W. Richardson, have come into only very limited use.

Is it not true that we have understood better every year the healing virtues of mineral waters, change of air, sea-voyages, and

^w In 1873, an elderly woman, wife of a farmer, was treated (in consultation with Mr. Kemm, of Corsham) according to this plan, and quite recovered. She was in fair health three or four years ago, and may be living now.

^x So long ago as 1857 there was a literary notice of iodoform as a therapeutic agent in a French journal; and it was much used both in France and in Italy before its introduction to British practice.

^y The empirical action of iodide of potassium in some internal aneurysms may be noticed here.

^z Dr. Woakes on *Deafness, Giddiness, and Noises in the Head*, 2nd edition, p. 128. The author's speculations are very ingenious; but as yet they can be regarded only as a "working hypothesis" for the explanation of obscure phenomena.

sea-bathing; the special merits of dry calm mountain air in the treatment of pulmonary consumption; the importance of posture,^a movement, and rest; and the supreme value of hygiene in its three elements of pure air, pure water, and proper clothing?^b And every one may appreciate how a body can be preserved healthy by fitting and regular occupations for the mind. Idleness and worry deteriorate the noblest mind and the soundest bodily constitution.

I have often thought that, instead of clamouring for new drugs, we should try and make a fuller use of those we have. How many good medicines there are of decaying reputation—gradually being “disestablished and disendowed,” if I may so say, mainly because it is the weakness of the human mind to oscillate between excessive confidence and excessive suspicion. The gradual disuse of calomel, especially for the minor ailments of children, is really a public misfortune. In many chronic maladies the prolonged administration of the perchloride of mercury might work untold benefit, if we were not in absolute terror of our patients lest they should see the fatal “Hydr.” in their prescriptions. But it is a gain to have nearly extinguished that fatal heresy, the non-mercurial treatment of syphilis.^c How little used internally is turpentine; and

^a Surgical anatomy and surgical posture have had their due meed of attention; but *medical* anatomy and *medical* posture very little attention indeed. For instance, if a very young child who has acute bronchitis be placed across the arms of a nurse, with the face downwards, and kept in this position for hours at a time, it may make all the difference between gradual recovery and gradual asphyxia.

^b It is remarkable that the precepts of personal hygiene were laid down with judgment and precision by Celsus and Galen. Aristotle specially advises a separate source of drinking water to be obtained, different from that used for other purposes.

The treatment of disease by a large quantity of milk is an interesting example of a food becoming a medicine according to the way in which it is given. Dr. George Johnson has advised the administration of 5 or 6 quarts every day as a bland diuretic in certain diseases of the kidney and bladder, all other medicine and nearly all other food being excluded. I tried this plan in one case of suppurative catarrh of the bladder with the most happy result—the rescue of a life from imminent death. Dr. Donkin’s skimmed-milk method of treating saccharine diabetes has not been uniformly successful.

^c A man in the position of a market gardener took (under my direction) a grain and a half of “blue pill” nearly every night for more than three years, with the gradual disappearance of all “specific” symptoms, and the restoration to comparatively good health. There are two medical conditions in which a gentle “mercurial course” is so signally useful: (1) certain cases of old bronchitis in elderly people, with slight dilatation of the right heart, and a cyanotic hue of skin; (2) those forms of paralysis of the *portio dura* of the seventh nerve which depend on chronic otitis of a non-purulent kind.

yet we have only to refer to that wonderful book, Dr. Copland's *Dictionary of Practical Medicine*, to find it extolled for a host of complaints, new and old. Is there anything in sarsaparilla? A great deal, if taken in the rational quantity of at least one pint of the pharmacopœial decoction every day, instead of those niggardly doses which cannot do the slightest good or harm. A few years ago Sir Thomas Watson deliberately said that the "present disuse of blood-letting is more disastrous than its overuse had been"; and Sir James Paget wrote at nearly the same time that "there is at present no remedy employed from which the immediate relief derived is so great or so complete as it was from bleeding." It is still less capable of apology that local blood-letting should be to a large extent abandoned, when it can be regulated to such a nicety by leeches and cupping. By this quick and simple method the acute inflammations of the eye, the ear, and the joints, might be often cut short, or rendered less severe. And who can sufficiently praise the old Spanish fly blister,^d or that large area of counter-irritation by iodine for which we are so indebted to the Birmingham School? It is unnecessary to theorize about the *modus* of counter-irritation, whether by blisters, or setons, or issues, when we recollect what was so well done with these means by the "old masters" of our craft. But alas—most of these things are like that fine old "educational tonic" the birchen rod, which is now only a happy memory of bygone days!

Time warns me that I cannot make use of the notes I had made on the art of prescribing, and the neglect of systematic instruction in it to students;^e on the desirableness of presenting medicines to our patients in a palatable form; on the great value

^d Dr. Herbert Davies' blister treatment of acute rheumatism is described in the *London Hospital Medical Reports* for 1865. For reducing pyrexia and pain, this plan is sometimes scarcely inferior in efficacy to the administration of salicin.

^e What a gain it would be if students were more intelligently drilled in the treatment of every day maladies, such as a common cold. In this a rational administration of drugs is suggested by a study of the physiological processes of heat-production and of heat-loss, and a disturbance of their equilibrium. Junior practitioners would be better equipped for many of the by-paths of practice if they *learned by heart* a number of the excellent formulæ at the end of Druitt's *Vade-mecum*, and Tanner's *Practice of Medicine*. And even men old in the profession might gather something from Dr. Brunton's therapeutic studies, such as his ideal "cough-mixture,"^f and the *rationale* of it (*Lancet*, Jan. 1, 1881).

of administering medicines in comparatively small and frequent doses; ^f on the defects in the posological table of the British Pharmacopæia; and on the necessity for medical men to keep up a study of the Pharmacopæia as a help to the emergencies of practice. A volume might be written, too, on the accuracy which the sphygmograph and the thermometer have given to our therapeutic aims. And it is, perhaps, one of the most delicate notes of a ripe experience to know when to withhold medicines entirely, ^g and to trust to those recuperative forces of nature which may be developed and assisted by a proper diet and hygiene.

In a rapid sketch like this I am obliged to leave a great deal unsaid; and every one here to-day will easily call to mind a hundred things which I have scarcely noticed, or altogether passed over. There is room for abundant enthusiasm and perseverance; there is no limit to future experiment and research. We ought to be perfectly eclectic in our doctrines and practice, hate all sectarian "pathies," and try and do all the good we can with the materials which a bountiful Providence has put into our hands. Great are our gifts; great also are our responsibilities; unworthy stewards we are at the best. Our work is not yet half unfolded. There are quite a number of diseases and minor ills which we are still unable to cure and hardly even to mitigate. I ask my younger brethren to step forward and fill up the ranks of skilful and earnest workers. If they will show what Plato calls a "passion for knowledge," it may be that, when another generation has gone by, and many of us now here will have been gathered to our fathers, some one in this room may occupy this very chair and celebrate in a more worthy way another—

THIRTY YEARS OF THERAPEUTIC PROGRESS.



^f I venture to refer to my original paper in the *Brit. and For. Med. Chir. Review*, Jan. 1872, as, so far as I know, the first detailed exposition of a most important subject, scarcely touched upon even in erudite and comprehensive treatises on Therapeutics.

^g That eminent and witty physiologist, Hoffman, said—"Avoid drugs and doctors, have an easy conscience, a merry heart, and a contented mind."

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